

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Chaim GILON et al

Serial No.:

10/508,959

Filed:

August 16, 2005

For:

HISTONE CONJUGATES AND USES THEREOF

Group Art Unit: 1656

Attorney

Docket: 28557

Examiner:

DESAI, ANAND U

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

This Supplemental Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

Martin O. Mogruha

Martin D. Moynihan

Registration No. 40,338

Dated: December 10, 2006

PTO/SB/08b (08-03)

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SUPPLEMENTAL INFORMATION **DISCLOSURE** STATEMENT BY APPLICANT

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Application Number	10/508,959		
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First Named Inventor	Chaim GILON et al		
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	(use	as many sheets as necessary)								
Sheet	1	Of 3	Attorney Docket Number	28557						
		OTHER PRIOR ART – NON PATEN	T LITERATURE DOCU	JMENTS						
Examiner	Cite	Include name of the author (in CAPITAL LETTERS),	title of the article (when appro	priate), title of the						
Initials	No.1	item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s),								
	 	publisher, city and/or country where published. Uherek et al. "DNA-Carrier Proteins for Targeted Gene Delivery", Advanced Drug								
	1	Delivery Reviews, 44: 153-166, 2000.								
			Navy Vactor for Human (Cono Tronsfor!!	<u> </u>					
	Fender et al. "Adenovirus Dodecahedron, A New Vector for Human Gene Transfer",									
	 -	Nature Biotechnology, 15: 52-56, 1997.	anitian Dustantias of Hist	anas and						
	Johnson-Saliba et al. "Distinct Importin Recognition Proterties of Histones and Chromatin Assembly Factors", FEBS Letters, 467: 169-174, 2000.									
	4	Luger et al. "Crystal Structure of the Nucleosome Core Particle at 2.8 ? Resolution",								
	5	Nature, 389: 251-260, 1997. Balicki et al. "Histone H2A-Mediated Transient Cytokine Gene Delivery Induces								
) 3									
		Efficient Antitumor Responses in Murine Neuroblastoma", Proc. Natl. Acad. Sci.								
7.	6		USA, 97(21): 11500-11504, 2000.							
	0		Gari?py et al. "Vectorial Delivery of Macromolecules Into Cells Using Peptide- Based Vehicles", Trends in Biotechnology, 19(1): 21-28, 2001.							
	7			als to						
	'	Kuismanen et al. "Low Temperature-Induced Transport Blocks as Tools to Manipulate Membrane Traffic", Methods in Cell Biology, 32: 257-274, 1989.								
	8	Vives et al. "Effects of the Tat Basic Domain on Human Immunodeficiency Virus								
	l°	Type 1 Transcativation, Using Chemically Sy								
		Peptides", Journal of Virology, 68(5): 3343-3		la rat						
	9	Viv?s et al. "A Truncated HIV-1 Tat Protein Basic Domain Rapidly Translocates								
	1	Through the Plasma Membrane and Accumul								
		of Biological Chemistry, 272(25): 16010-160		,						
	10	Luger et al. "Expression and Purification of Recombinant Histones and Nucleosome								
	1.0	Reconstitution", Methods in Molecular Biolo								
		1999.	8,							
	11	Friedler et al. "Development of A Functional	Backbone Cyclic Mimet	ic of the HIV-1						
		Tat Arginine-Rich Motif", The Journal of Bio								
		23789, 2000.								
	12	Melchior et al. "Inhibition of Nuclear Protein	Import by Nonhydrolyz	able Analogues						
		of GTP and Identification of the Small GTPa	se Ran/TC4 as An Essen	tial Transport						
		Factor", The Journal of Cell Biology, 123(6):	1649-1659, 1993.	_						
	13	Lundberg et al. "Positively Charged DNA-Bi	nding Proteins Cause Ap	parent Cell						
		Membrane Translocation, Biochemical and B	Siophysical Research Cor	nmunications,						
		291: 367-371, 2002.								
	14	Skrzypek et al. "Targeting of the Yersinia Pestis YopM Protein Into HeLa Cells and								
		Intracellular Trafficking to the Nucleus", Mo	lecular Microbiology, 30	(5): 1051-1065,						
		1998.								
	15	Elliott et al. "Intercellular Trafficking and Pro	otein Delivery by A Herp	esvirus						
		Structural Protein", Cell, 88: 223-233, 1997.								

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Attorney Docket Number Sheet OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Examiner Cite item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), T^2 Initials No.1 publisher, city and/or country where published. 16 Bayer et al. "Effect of Bafilomycin A1 and Nocodazole on Endocytic Transport in HeLa Cells: Implications for Viral Uncoating and Infection", Journal of Virology, 72(12): 9645-9655, 1998. 17 Catizone et al. "Non-Specific Pinocytosis by Human Endothelial Cells Cultured as Multicellular Aggregates: Uptake of Lucifer Yellow and Horse Radish Peroxidase", Cellular and Molecular Biology, 42(8): 1229-1242, 1996. 18 Rossi et al. "Structural Analysis of the Substoichiometric and Stoichiometric Microtubule-Inhibiting Biphenyl Analogues of Colchicine", Biochemistry, 35: 3286-3289, 1996. Suzuki et al. "Possible Existence of Common Internalization Mechanisms Among 19 Arginine-Rich Peptides", The Journal of Biological Chemistry, 277(4): 2437-2443, Polyakov et al. "Novel Tat-Peptide Chelates for Direct Transduction of Technetium-20 99m and Rhenium Into Human Cells for Imaging and Radiotherapy", Bioconjugate Chemistry, 11:762-771, 2000. Plank et al. "Application of Membrane-Active Peptides for Drug and Gene Delivery 21 Across Cellular Membranes", Advanced Drug Delivery Reviews, 34: 21-35, 1998. Friedler et al. "Identification of A Nuclear Transport Inhibitory Signal (NTIS) in the 22 Basic Domain of HIV-1 Vif Protein", Journal of Molecular Biology, 289: 431-437, Karni et al. "A Peptide Derived From the N-Terminal Region of HIV-1 Vpr Promotes 23 Nuclear Import in Permeabilized Cells: Elucidation of the NLS Region of the Vpr", FEBS Letters, 429: 421-425, 1998. Efthymiadis et al. "The HIV-1 Tat Nuclear Localization Sequence Confers Novel 24 Nuclear Import Properties", The Journal of Biological Chemistry, 273(3): 1623-1628, Brinkmann et al. "High-Level Expression of Recombinant Genes in Escherichia Coli 25 Is Dependent on the Availability of the DNA-Y Gene Product", Gene, 85: 109-114, Kane "Effects of Rare Codon Clusters on High-Level Expression of Heterologous 26 Proteins in Escherichia Coli", Current Opinion in Biotechnology, 6: 494-500, 1995. Brisson et al. "Expression of A bacterial Gene in Plants by Using A Viral Vector", 27 Nature, 310: 511-514, 1984. Coruzzi et al. "Tissue-Specific and Light-Regulated Expression of A Pea Nuclear 28 Gene Encoding the Small Subunit of Ribulose-1,5-Bisphosphate Carboxylase", The EMBO Journal, 3(8): 1671-1679, 1984. Fingl et al. "General Principles", The Pharmacological Basis of Therapeutics, 29 Sec.I(Chap.1): 1-46, 1975.

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	Forseen et al. "Identification and Relationship of HER-2/Neu Overexpression to Short-Term Mortality in Primary Malignant Brain Tumors", Anticancer Research, 22: 1599-1602, 2002.					
	31		Gardella et al. "Expression of Human Parathyroid Hormone-(1-84) in Escherichia Coli as A Factor X-Cleavable Fusion Protein", The Journal of Biological Chemistry,			
	32	Goldfarb et al. "Synthet 641-644, 1986.	tic Peptides as Nuclea	r Localization Signals", 1	Vature, 322:	
	33	Graessmann et al. "Mic 101(Chap.30): 482-492		Culture Cells", Methods	in Enzymology,	
	Gurley et al. "Upstream Sequences Required for Efficient Expression of A Soybean Heat Shock Gene", Molecular and Cellular Biology, 6(2): 559-565, 1986.					
	35	Hutv?gner et al. "RNAi: Nature Abhors A Double-Strand", Current Opinion in Genetics & Development, 12: 225-232, 2002. Louis et al. "Genetic Basis of Neurological Tumours", Bailli?re's Clinical Neurology, 3(2/Chap.7): 335-352, 1994. Merrifield "Solid Phase Peptide Synthesis. I. The Synthesis of A Tetrapeptide", Journal of the American Chemical Society, 85: 2149-2154, 1963.				
	36					
	37					
	Gerard "Purification of Glycoproteins", Methods in Enzymology, 182(Chap.40): 529-539, 1990.				(Chap.40): 529-	
	39			Immunology, Chap.105:		
	40		eotides", Antisense Re	Nucleic Acids and Their esearch and Applications		
	41			Direct Expression of Clearymology, 185(Chap.6)		
	42	Sulkowski "Purification 1985.	of Proteins by IMAC	C", Trends in Biotechnolo	ogy, 3(1): 1-7,	
	43	in Tobacco Plants Med 1987.	iated by TMV-RNA",	loramphenicol Acetyltran The EMBO Journal, 6(2): 307-311,	
	44		nod for Plant Molecul	action of Transformed Pla ar Biology, Sec.VIII: Ger		

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